



Phase 1 Pioneering

As a small child, Shannon Lucid knew what she wanted to do when she grew up—she wanted to explore the Earth. She got her wish, but probably not from the vantage point she had originally expected. “When I was a little girl I was very interested in being a pioneer like in the American west, and I really liked those stories, but I thought ‘well, I was born in the wrong time,’” she says. She turned her attention to exploration, but again thought the timing was off. “I thought well I can just be an explorer, but then I thought ‘when I grow up all the Earth is going to be explored.’ As fate would have it, when she was in the fourth and fifth grade, Lucid stumbled onto stories about Robert Goddard, the father of rocketry, and became fascinated with his work. That led to further interest in space and its frontier rather than the west. “I started reading about science fiction and I thought, ‘well, that’s what I can do when I grow up—I can grow up and explore space.’”

By Kyle Herring

Four space shuttle missions later, Astronaut Shannon Lucid, is poised to embark on an exploration beyond any she could have dreamed as a child.

Next week in the pre-dawn hours of March 21, she will start her fifth mission in space with a launch aboard *Atlantis* on the third flight to dock with Russia’s Mir Space Station. Once docked, she will move into the station that she will call home for the next five months.

Lucid, along with Astronaut John Blaha, began this journey a year and a half ago when she volunteered to represent NASA and particularly the Astronaut Office by working on the Phase 1 project with Russia—the shuttle/Mir docking missions. It was then that Hoot Gibson, chief of the Astronaut Office at that time, called she and Blaha and told them they were headed to California for intensive language training. Lucid earlier had requested the assignment.

“I put down that my first choice was to be involved in the Phase 1 program and be a crew member on Mir,” she says. “And frankly I was very surprised that something I volunteered for and wanted to do actually happened.”

February 1995 saw the departure of Lucid and Blaha to Russia to join astronauts already training for Phase 1 missions. Norm Thagard was a month away from his launch aboard a Soyuz rocket for a near four-month stay before returning on the first shuttle/Mir docking mission—STS-71. His backup, Bonnie Dunbar trained along with him and flew on the shuttle mission that brought Thagard and his two cosmonaut crew mates home. “Both John and I are very appreciative

of all the effort that Norm went to,” she says. “He was a real pioneer.”

One of Norm’s suggestions was that anyone participating in long-duration spaceflights take advantage of their free time to relax. Lucid has chosen reading as her primary method of relaxation during her free time. Her reading material consists of a stock of books already delivered to Mir via the STS-74 mission. Lucid’s family picked them and Shannon doesn’t have any idea what’s waiting for her when she arrives. She has been assured by the STS-74 crew that her supplies were delivered to the station.

While Blaha’s wife Brenda accompanied him to Star City for his training, Lucid’s family had to stay behind. They did visit during the holidays, however. Life at Star City has been different than here, she says, but quite rewarding.

She accepted the assignment enthusiastically and looked at it as a challenge. “I was real excited about doing it and I guess that was sort of my motivating factor as to why I wanted to do it. It was different and I thought it would be a very good opportunity to work in a different culture, meet new people and see how things were being done from a different perspective. It has been a very good year.”

The biggest challenges, she says, is mastering the language and learning the cultural differences. “My going in position was that I was going to live like everybody there was living,” Lucid says. “I didn’t expect to have the western lifestyle that I have here in Clear Lake City and so everything worked out alright.”

What does she think the biggest difference

is between life in Star City and life here—other than language and weather? “You’re not just two minutes away from the local grocery store where you can run in and pick up something if you forgot it, for instance. So there’s a lot of time that you spend just doing your daily living things.

“My family came over for Christmas and my son was telling me what he wanted for supper one night, so I said okay I think we can manage that. So we went out to get the things and two hours later as we were going home he said ‘that was a lot of work just to get enough food for one meal’ and I said well, that’s the way it is here.”

While day-to-day life has been challenging, Lucid says her primary focus during the year has been learning the Russian language. “That seems to be what has taken all of our time. I don’t think anybody has a concept of how difficult that is,” she says.

The astronauts concentrate on their technical Russian to get through the training program, but also practice the conversational aspect of the language. “It’s obvious that the five months we spend on Mir are not going to be spent sitting around talking about ways of producing oxygen,” Lucid says. “We’ve tried to work on conversational Russian so we can talk about ordinary things with our crew while we’re up there.”

Lucid will have the unique position of being part of four different crews/missions on her flight. She will launch as a mission specialist on STS-76, become a cosmonaut researcher joining the Mir 21 crew—Commander Yuri Onufrienko and Flight Engineer Yuri Usachev

launched in February, stay aboard Mir during a crew exchange with the Mir 22 crew—Commander Gennady Manakov, Flight Engineer Pavel Vinogradov and French Space Agency Researcher Claudie Andre-Deshays, and return home in August with the STS-79 crew of which her replacement, Blaha, will be a member.

She’s looking forward to seeing Onufrienko and Usachev again after *Atlantis* docks to Mir. Lucid trained for a year with them and then watching their Soyuz launch from Baikonur three weeks ago.” When I was in Baikonur and we watched them launch, it felt a little strange to see them launch and not launch with them since we had been working as a team for awhile,” she says.

Her hopes are that this mission and the American flights on Mir to follow, will prove valuable for future cooperative projects in space, including the International Space Station. “I hope that we will take the lessons that we learn and apply them to every incremental step toward the future.”

If all stays on schedule, Lucid will continue her journey to explore space and the Earth with the same excitement she had as a youngster. Her vision has expanded, however, to explore beyond low Earth orbit and reach for other planets. In addition to everything else space station will offer, the pioneer/explorer in Lucid would like it to be a stepping stone to interplanetary travel. Next week the journey continues.

“That’s what I can do when I grow up—I can grow up and explore space.” □

(Editor’s note: The Phase 1 series will continue in August with a profile of Astronaut John Blaha)



Top to bottom left to right: 1) Shannon Lucid participates in water survival training in a Soyuz capsule mockup at a lakeside training facility in Central Asia. 2) As a mission specialist on STS-43, Lucid checks samples of protein crystals on the middeck of *Atlantis* 3) From left, Astronaut John Blaha, Lucid and Mir 23 Commander Vasily Tsibliev talk with a reporter during a suited training session in Star City, Russia. Blaha will replace Lucid in August on the Russian Mir Space Station. Tsibliev will be launched in December along with a Russian flight engineer and a German researcher shortly after Blaha is replaced on Mir by Jerry Linenger 4) STS-43 Mission Specialist Lucid with Pilot Mike Baker monitor Mission Specialist David Low, left, in the Lower Body Negative Pressure suit. 5) From left, Blaha, Tsibliev and Lucid participate in training exercises at Star City. 6) STS-51G Mission Specialist Steve Nagel, left, works on the treadmill with the help of Commander Daniel Brandenstein, lower right, Pilot John Creighton and Mission Specialist Lucid.